

## CLAIMS

What is claimed is:

1. A computer-implemented method comprising:  
transmitting a test file to a client;  
timing said transmission of said test file with a timer;  
resetting said timer and reattempting said transmission of said test file if said timer reaches a first maximum threshold value; and  
calculating an effective bitrate for delivering data to said client based on transmission time of said test file.
2. The method as in claim 1 further comprising:  
selecting a minimum bitrate for delivering data to said client if said timer reaches a second maximum threshold value and.
3. The method as in claim 1 wherein said test file is compressed using a compression algorithm.
4. The method as in claim 1 wherein said test file is less than 10 kbits in size.
5. The method as in claim 2 wherein said first threshold value is equal to said second threshold value.
6. The method as in claim 1 further comprising:  
comparing said effective bitrate to a plurality of available bitrates in a lookup table;  
selecting one of said available bitrates based on said effective bitrate; and

transmitting audio/video content to said client at said selected available  
bitrate.

7. The method as in claim 6 wherein transmitting comprises streaming  
said audio/video content to said client.

8. The method as in claim 1 further comprising:  
decoding a compressed test file at said client;  
timing said decoding of said test file with a timer to determine a  
decompression time; and  
calculating a buffer size for incoming data at said client based on  
decompression time of said test file and/or said effective bitrate.

9. The method as in claim 8 further comprising:  
selecting a maximum buffer size at said client if said timer reaches a  
second maximum threshold value.

10. The method as in claim 1 wherein said test file is derived from media  
content of a similar type as that typically streamed to said client and other clients.

11. An article of manufacture including a sequence of instructions which,  
when executed by a processor, cause said processor to:  
transmit a test file to a client;  
time said transmission of said test file with a timer;  
reset said timer and reattempt said transmission of said test file if said  
timer reaches a first maximum threshold value; and

Table 1	
Summary of the study	
Study design	Retrospective cohort study
Study period	1990-1999
Study location	United Kingdom
Study population	10,000 men aged 40-60 years
Study objectives	To investigate the association between alcohol consumption and the risk of developing prostate cancer
Study results	Men who consumed alcohol regularly had a significantly higher risk of developing prostate cancer compared to those who did not consume alcohol regularly
Study conclusions	Regular alcohol consumption is associated with an increased risk of developing prostate cancer

select a minimum bitrate for delivering data to said client if said timer reaches a second maximum threshold value and.

14. The article of manufacture as in claim 11 wherein said test file is less than 10 kbits in size.

16. The article of manufacture as in claim 11 comprising additional instructions which cause said processor to:

17. The article of manufacture as in claim 16 wherein transmitting comprises streaming said audio/video content to said client.

18. The article of manufacture as in claim 11 comprising additional instructions which cause said processor to:

decompression a compressed test file at said client;  
time said decoding of said test file with a timer; and  
calculate a buffer size for incoming data at said client based on  
decompression time of said test file and/or said effective bitrate.

19. The article of manufacture as in claim 18 further comprising:  
selecting a maximum buffer size at said client if said timer reaches a  
second maximum threshold value.

20. A method comprising:  
timing a first transmission of a test file to a client;  
timing a second transmission of said test file to said client if said test file is  
not fully received at said client within a first maximum threshold timing value; and  
calculating an effective bitrate for delivering data to said client based on  
transmission time of said test file in said first transmission if said test file is fully  
received at said client within said first maximum threshold timing value.

21. The method as in claim 20 further comprising:  
calculating an effective bitrate for delivering data to said client based on  
transmission time of said test file in said second transmission if said test file is  
not fully received at said client within said first maximum threshold timing value.

22. The method as in claim 21 further comprising:  
selecting a minimum predetermined bitrate for delivering data to said client  
if said test file in said second transmission is not fully received at said client  
within a second maximum threshold timing value.

23. The method as in claim 22 wherein said second maximum threshold timing value is equal to said first maximum threshold timing value.

24. The method as in claim 20 further comprising:  
decoding a compressed test file at said client;  
timing said decoding of said test file with a timer; and  
calculating a buffer size for incoming data at said client based on  
decompression time of said test file and/or said effective bitrate.

25. The method as in claim 24 further comprising:  
resetting said timer and reattempting said decompression of said test file if  
said timer reaches a first maximum threshold value

26. The method as in claim 25 further comprising:  
selecting a maximum buffer size at said client if said timer reaches a  
second maximum threshold value.